

What Is Claimed Is:

1. An optical element drive mechanism, comprising:
a movable portion including at least an optical element having a reflecting surface;
a support member for supporting the movable portion rotatably with respect to a fixing member; and
a drive mechanism including at least a coil and a magnet for driving the movable portion;

wherein a pole surface of the magnet is substantially parallel to the reflecting surface of the movable portion.

2. The optical element drive mechanism according to claim 1, wherein a magnetic field which is substantially in parallel with the reflecting surface of the movable portion functions on an effective portion of the coil.

3. The optical element drive mechanism according to claim 1, wherein a plurality of magnetic poles are provided on the pole surface of the magnet.

4. The optical element drive mechanism according to claim 3, wherein the plurality of magnetic poles provided on the pole surface of the magnet are opposite to the movable portion.

5. The optical element drive mechanism according to claim 4, wherein the effective portion of the coil is positioned at a boundary portion between respective magnetic poles of the magnet.

6. The optical element drive mechanism according to claim 1, wherein the coil is attached to the movable portion.

7. The optical element drive mechanism according to claim 6, wherein the movable portion comprises the reflecting surface on a first side and the coil on a second side.

8. The optical element drive mechanism according to claim 1, further comprising an array of a plurality of the movable portions.

9. The optical element drive mechanism according to claim 8, wherein the plurality of the movable portions are provided integrally with respective support members.

10. The optical element drive mechanism according to claim 8, wherein a magnetic flux generated by the magnet is adapted to drive the plurality of movable portions.

11. An optical element drive mechanism, comprising:
a movable portion including at least an optical element having a reflecting surface;
a support member for supporting the movable portion rotatably with respect to a fixing member; and
a drive mechanism including at least a coil and a magnet for driving the movable portion;
wherein the coil is provided between the magnet and the reflecting surface.

12. The optical element drive mechanism according to claim 11, wherein a magnetic field which is substantially parallel to the reflecting surface of the movable portion functions on an effective portion of the coil.

13. The optical element drive mechanism according to claim 11, wherein a plurality of magnetic poles are provided on a surface of the magnet.

14. The optical element drive mechanism according to claim 11, wherein the plurality of magnetic poles provided on the surface of the magnet are opposite to the movable portion.

15. The optical element drive mechanism according to claim 14, wherein an effective portion of the coil is positioned at a boundary portion between respective magnetic poles of the magnet.

16. The optical element drive mechanism according to claim 11, wherein the coil is attached to the movable portion.

17. The optical element drive mechanism according to claim 16, wherein the movable portion comprises the reflecting surface on a first side and the coil on a second side.

18. The optical element drive mechanism according to claim 11, further comprising an array of a plurality of the movable portions.

19. The optical element drive mechanism according to claim 18, wherein the plurality of the movable portions are provided integrally with respective support members.

20. The optical element drive mechanism according to claim 18, wherein a magnetic flux generated by the magnet is adapted to drive the plurality of movable portions.

21. An optical element drive mechanism, comprising:
a plate including a plurality of movable portions each
having at least a reflecting surface;
support members for supporting the movable portions;
and
coils provided on the movable portions;
wherein at least one magnet is provided in parallel
with the reflecting surfaces so as to be opposite to the
coils.

22. The optical element drive mechanism according to
claim 21, wherein the magnet comprises a plurality of
magnetic poles.

23. The optical element drive mechanism according to
claim 21, wherein the magnet has a substantially flat plate
shape.

24. The optical element drive mechanism according to
claim 21, wherein the magnetic poles of the magnet are
opposite to the movable portions.

25. The optical element drive mechanism according to
claim 21, wherein a magnetic field which functions on an

effective portion of the coil is substantially parallel to the reflecting surfaces.

26. The optical element drive mechanism according to claim 21, wherein the at least one magnet comprises a single magnet.

27. The optical element drive mechanism according to claim 21, further comprising a housing for holding the plate and the magnets.

28. The optical element drive mechanism according to claim 27, wherein the housing, the magnets and the plate are consecutively stacked.

29. The optical element drive mechanism according to claim 21, wherein the movable portions each comprise the reflecting surface on a first side and the coil on a second side.